

j. *Controlled burning of a demolished building.* A city, as “city” is defined in Iowa Code section 362.2(4), with approval of its council, as “council” is defined in Iowa Code section 362.2(8), may conduct a controlled burn of a demolished building. A city is the only party that may conduct such a burn and is responsible for ensuring that all of the following conditions are met:

(1) *Prohibition.* The controlled burning of a demolished building is prohibited within the city limits of Cedar Rapids, Marion, Hiawatha, Council Bluffs, Carter Lake, Des Moines, West Des Moines, Clive, Windsor Heights, Urbandale, Pleasant Hill, Buffalo, Davenport, Mason City or any other area where area-specific state implementation plans require the control of particulate matter.

(2) *Notification requirements.* For each building proposed to be burned, the city fire department or a city official, on behalf of the city, shall submit to the department a completed notification postmarked at least 10 working days prior to commencing demolition and at least 30 days before the proposed controlled burn commences. Documentation of city council approval shall be submitted with the notification. Information required to be provided shall include: the exact location of the burn site; the approximate distance to the nearest neighboring residence or business; the method used by the city to notify nearby residents of the proposed burn; an explanation of why alternative methods of demolition debris management are not being used; and information required by 40 CFR Section 61.145, “Standard for Demolition and Renovation” of the asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP), as amended through January 16, 1991. Notification shall be provided on DNR Form 542-8010, Notification of an Iowa Training Fire-Demolition or a Controlled Burn of a Demolished Building. For burns conducted outside the city limits, the city shall send to the chairperson of the applicable county board a copy of the completed DNR notification form 542-8010 and documentation of city council approval. Notification to the county board shall be postmarked, faxed or sent by electronic mail at least 30 days before the proposed controlled burn commences.

(3) *Asbestos removal requirements.* All asbestos-containing materials shall be removed before the building to be burned is demolished. The department may require proof that any applicable inspection, notification, removal and demolition occurred, or will occur, in accordance with 40 CFR Section 61.145, “Standard for Demolition and Renovation” of the asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP), as amended through January 16, 1991.

(4) *Requirements for asphalt roofing.* During each calendar year, each city shall conduct no more than two controlled burns of a demolished building in which asphalt roofing has not been removed, provided that for each controlled burn of a demolished building the asphalt roofing material present has been tested to ensure that it does not contain asbestos. Each city’s limit on the burning of asphalt roofing shall include both the controlled burning of a demolished building and training fires, as specified in paragraph 23.2(3)“g.”

(5) *Building size limit.* For each proposed controlled burn located within the city limits, more than one demolished building may be included in the burn, provided that the sum total of all building material to be burned at a designated site does not exceed 1700 square feet in size. For a controlled burn site located outside the city limits, the sum total of all building material to be burned, per day, may not exceed 1700 square feet in size. For purposes of this subparagraph, “square feet” includes both finished and unfinished basements and excludes unfinished attics, carports, attached garages, and porches that are not protected from weather.

(6) *Time of day requirements.* The controlled burning of a demolished building may be conducted only between the hours of 6 a.m. and 6 p.m. and only when weather conditions are favorable with respect to surrounding property. The city shall adequately schedule and sufficiently control the burn to ensure that burning is completed by 6 p.m.

(7) *Prohibited materials.* Rubber tires, chemicals, furniture, carpeting, household appliances, vinyl products (such as flooring or siding), trade waste, garbage, rubbish, landscape waste, residential waste, and other nonstructural materials shall not be burned.

(8) *Limits on the number and location of burns.* For burns conducted within the city limits, each city may undertake no more than one controlled burn of demolished building material in every 0.6-mile-radius circle during each calendar year. For burn sites established outside the city limits, each city shall undertake no more than one controlled burn of demolished building material per day. A burn site outside the city limits must be located at least 0.6 of a mile from any building inhabited by a person, as “person” is defined in Iowa Code section 362.2(17).

(9) *Requirements for burn access and supervision.* The city shall control access to all demolished building burn sites. Representatives of the city who are city employees or who are hired by the city shall supervise the burning of demolished building material at all times.

(10) *Record-keeping requirements.* The city shall retain at least one copy of all notifications and supplementary information required to be sent to the department under subparagraph (2). Additionally, the city shall maintain a map of the exact location of each burn site, and supporting documentation showing the date of each demolished building burn and the square feet of building material burned on each date. All maps, notifications and associated records shall be maintained by the city clerk, as “clerk” is defined in Iowa Code section 362.2(7), for a period of at least three years and shall be made available for inspection by the department upon request.

(11) *Variance from this paragraph.* In accordance with 567—subrules 21.2(1) and 23.2(2), a city may apply for a variance from the specific conditions for controlled burning of a demolished building and may request that the director conduct a review of the ambient air impacts of the request. The director shall approve or deny the request in accordance with 567—subrule 21.2(4).

(12) *Compliance with other applicable environmental regulations.* Compliance with the exemption requirements in this paragraph shall not absolve a city of the responsibility to comply with any other applicable environmental regulations. In particular, a city conducting a controlled burn of a demolished building shall comply with all applicable solid waste disposal, including ash disposal, and solid waste permitting rules contained in 567—Chapters 100 through 130, as well as all applicable storm water discharge and storm water permitting rules contained in 567—Chapters 60 and 64.

23.3(4) Unavailability of exemptions in certain areas. Notwithstanding 23.2(2) and 23.2(3) “b,” “d,” “f,” and “i,” no person shall allow, cause or permit the open burning of trees or tree trimmings, residential or landscape waste or agricultural structures in the cities of: Cedar Rapids, Marion, Hiawatha, Council Bluffs, Carter Lake, Des Moines, West Des Moines, Clive, Windsor Heights, Urbandale, and Pleasant Hill.

This rule is intended to implement Iowa Code section 455B.133.

567—23.3(455B) Specific contaminants.

23.3(1) General. The emission standards contained in this rule shall apply to each source operation unless a specific emission standard for the process involved is prescribed elsewhere in this chapter, in which case the specific standard shall apply.

23.3(2) Particulate matter. No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567—Chapter 24.

a. General emission rate.

(1) For sources constructed, modified or reconstructed on or after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot (dscf) of exhaust gas, except as provided in 567—21.2(455B), 23.1(455B), 23.4(455B), and 567—Chapter 24.

(2) For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas, or established from standards provided in 23.1(455B) and 23.4(455B).

TABLE I
ALLOWABLE RATE OF EMISSION BASED ON PROCESS WEIGHT RATE*

Process Weight Rate		Emission Rate	Process Weight Rate		Emission Rate
Lb/Hr	Tons/Hr	Lb/Hr	Lb/Hr	Tons/Hr	Lb/Hr
100	0.05	0.55	16,000	8.00	16.5
200	0.10	0.88	18,000	9.00	17.9
400	0.20	1.40	20,000	10.00	19.2
600	0.30	1.83	30,000	15.00	25.2
800	0.40	2.22	40,000	20.00	30.5
1,000	0.50	2.58	50,000	25.00	35.4
1,500	0.75	3.38	60,000	30.00	40.0
2,000	1.00	4.10	70,000	35.00	41.3
2,500	1.25	4.76	80,000	40.00	42.5
3,000	1.50	5.38	90,000	45.00	43.6
3,500	1.75	5.96	100,000	50.00	44.6
4,000	2.00	6.52	120,000	60.00	46.3
5,000	2.50	7.58	140,000	70.00	47.8
6,000	3.00	8.56	160,000	80.00	49.0
7,000	3.50	9.49	200,000	100.00	51.2
8,000	4.00	10.4	1,000,000	500.00	69.0
9,000	4.50	11.2	2,000,000	1,000.00	77.6
10,000	5.00	12.0	6,000,000	3,000.00	92.7
12,000	6.00	13.6			

*Interpolation of the data in this table for process weight rates up to 60,000 lb/hr shall be accomplished by the use of the equation

$$E=4.10 P^{0.67},$$

and interpolation and extrapolation of the data for process weight rates in excess of 60,000 lb/hr shall be accomplished by use of the equation

$$E=55.0 P^{0.11}-40,$$

where E = rate of emission in lb/hr, and

P = process weight in tons/hr

b. Combustion for indirect heating. Emissions of particulate matter from the combustion of fuel for indirect heating or for power generation shall be limited by the ASME Standard APS-1, Second Edition, November, 1968, "Recommended Guide for the Control of Dust Emission—Combustion for Indirect Heat Exchangers." For the purpose of this paragraph, the allowable emissions shall be calculated from equation (15) in that standard, with $\text{Comax}^2=50$ micrograms per cubic meter. Allowable emissions from a single stack may be estimated from Figure 1. The maximum ground level dust concentrations designated are above the background level. For plants with 4,000 million Btu/hour input or more, the "a" factor shall be 1.0. In plants with less than 4,000 million Btu/hour input, appropriate "a" factors, less than 1.0, shall be applied. Pertinent correction factors, as specified in the standard, shall be applied for installations with multiple stacks. However, for fuel-burning units in operation on January 13, 1976, the maximum allowable emissions calculated under APS-1 for the facility's equipment configuration on January 13, 1976, shall not be increased even if the changes in the equipment or stack configuration would otherwise allow a recalculation and a higher maximum allowable emission under APS-1.

(1) Outside any standard metropolitan statistical area, the maximum allowable emissions from each stack, irrespective of stack height, shall be 0.8 pounds of particulates per million Btu input.

(2) Inside any standard metropolitan statistical area, the maximum allowable emission from each stack, irrespective of stack height, shall be 0.6 pounds of particulates per million Btu input.

(3) For a new fossil fuel-fired steam generating unit of more than 250 million Btu per hour heat input, 23.1(2) "a" shall apply. For a new unit of between 150 million and 250 million (inclusive) Btu per hour heat input, the maximum allowable emissions from such new unit shall be 0.2 pounds of particulates per million Btu of heat input. For a new unit of less than 150 million Btu per hour heat input, the maximum allowable emissions from such new unit shall be 0.6 pounds of particulates per million Btu of heat input.

(4) Measurements of emissions from a particulate source will be made in accordance with the provisions of 567—Chapter 25.

All sources regulated under this subparagraph shall demonstrate compliance by October 1, 1981; however, a source is considered to be in compliance with this subparagraph if by October 1, 1981, it is on a compliance schedule to be completed as expeditiously as possible, but no later than December 31, 1982.

c. Fugitive dust.

(1) Attainment and unclassified areas. A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits any materials to be handled, transported or stored or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The public highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not be limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.

2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.

3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizer or limestone.

4. Covering, at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.

5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.

(2) Nonattainment areas. Subparagraph (1) notwithstanding, no person shall allow, cause or permit any visible emission of fugitive dust in a nonattainment area for particulate matter to go beyond the lot line of the property on which a traditional source is located without taking reasonable precautions to prevent emission. Traditional source means a source category for which a particulate emission standard has been established in 23.1(2), 23.3(2)“a,” 23.3(2)“b” or 23.4(455B) and includes a quarry operation, haul road or parking lot associated with a traditional source. This paragraph does not modify the emission standard stated in 23.1(2), 23.3(2)“a,” 23.3(2)“b” or 23.4(455B), but rather establishes a separate requirement for fugitive dust from such sources. For guidance on the types of controls which may constitute reasonable precautions, see “Identification of Techniques for the Control of Industrial Fugitive Dust Emissions*,” adopted by the commission on May 19, 1981.

*Available from the department

(3) Reclassified areas. Reasonable precautions implemented pursuant to the nonattainment area provisions of subparagraph (2) shall remain in effect if the nonattainment area is redesignated to either attainment or unclassified after March 6, 1980.

d. Visible emissions. No person shall allow, cause or permit the emission of visible air contaminants into the atmosphere from any equipment, internal combustion engine, premise fire, open fire or stack, equal to or in excess of 40 percent opacity or that level specified in a construction permit, except as provided below and in 567—Chapter 24.

(1) *Residential heating equipment.* Residential heating equipment serving dwellings of four family units or less is exempt.

(2) *Gasoline-powered vehicles.* No person shall allow, cause or permit the emission of visible air contaminants from gasoline-powered motor vehicles for longer than five consecutive seconds.

(3) *Diesel-powered vehicles.* No person shall allow, cause or permit the emission of visible air contaminants from diesel-powered motor vehicles in excess of 40 percent opacity, for longer than five consecutive seconds.

(4) *Diesel-powered locomotives.* No person shall allow, cause or permit the emission of visible air contaminants from diesel-powered locomotives in excess of 40 percent opacity, except for a maximum period of 40 consecutive seconds during acceleration under load, or for a period of four consecutive minutes when a locomotive is loaded after a period of idling.

(5) *Startup and testing.* Initial start and warmup of a cold engine, the testing of an engine for trouble, diagnosis or repair, or engine research and development activities, is exempt.

(6) *Uncombined water.* The provisions of this paragraph shall apply to any emission which would be in violation of these provisions except for the presence of uncombined water, such as condensed water vapor.

23.3(3) Sulfur compounds. The provisions of this subrule shall apply to any installation from which sulfur compounds are emitted into the atmosphere.

a. Sulfur dioxide from use of solid fuels.

(1) No person shall allow, cause, or permit the emission of sulfur dioxide into the atmosphere from an existing solid fuel-burning unit, (i.e., a unit which was in operation or for which components had been purchased, or which was under construction prior to September 23, 1970), in an amount greater than 6 pounds, replicated maximum three-hour average, per million Btu of heat input if such unit is located within the following counties: Black Hawk, Clinton, Des Moines, Dubuque, Jackson, Lee, Linn, Lousia, Muscatine and Scott.

(2) No person shall allow, cause, or permit the emission of sulfur dioxide into the atmosphere from an existing solid fuel-burning unit, (i.e., a unit which was in operation or for which components had been purchased, or which was under construction prior to September 23, 1970), in an amount greater than 5 pounds, replicated maximum three-hour average, per million Btu of heat input if such unit is located within the remaining 89 counties of the state not listed in subparagraph 23.3(3)“a”(1).

(3) No person shall allow, cause, or permit the emission of sulfur dioxide into the atmosphere from any new solid fuel-burning unit (i.e., a unit which was not in operation or for which components had not been purchased, or which was not under construction prior to September 23, 1970) which has a capacity of 250 million Btu or less per hour heat input, in an amount greater than 6 pounds, replicated maximum three-hour average, per million Btu of heat input.

(4) Subparagraphs (1) through (3) notwithstanding, a fossil fuel-fired steam generator to which 23.1(2)“a,” 23.1(2)“z” or 23.1(2)“ccc” applies shall comply with 23.1(2)“a,” 23.1(2)“z” or 23.1(2)“ccc,” respectively.

b. Sulfur dioxide from use of liquid fuels.

(1) No person shall allow, cause, or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

(2) No person shall allow, cause, or permit the emission of sulfur dioxide into the atmosphere in an amount greater than 2.5 pounds of sulfur dioxide, replicated maximum three-hour average, per million Btu of heat input from a liquid fuel-burning unit.

(3) Notwithstanding this paragraph, a fossil fuel-fired steam generator to which 23.1(2)“a,” 23.1(2)“z” or 23.1(2)“ccc” applies shall comply with 23.1(2)“a,” 23.1(2)“z” or 23.1(2)“ccc.”

c. Sulfur dioxide from sulfuric acid manufacture. After January 1, 1975, no person shall allow, cause or permit the emission of sulfur dioxide from an existing sulfuric acid manufacturing plant in excess of 30 pounds of sulfur dioxide, maximum three-hour average, per ton of product calculated as 100 percent sulfuric acid.

d. Acid mist from sulfuric acid manufacture. After January 1, 1974, no person shall allow, cause or permit the emission of acid mist calculated as sulfuric acid from an existing sulfuric acid manufacturing plant in excess of 0.5 pounds, maximum three-hour average, per ton of product calculated as 100 percent sulfuric acid.

e. Other processes capable of emitting sulfur dioxide. After January 1, 1974, no person shall allow, cause or permit the emission of sulfur dioxide from any process, other than sulfuric acid manufacture, in excess of 500 parts per million, based on volume. This paragraph shall not apply to devices which have been installed for air pollution abatement purposes where it is demonstrated by the owner of the source that the ambient air quality standards are not being exceeded.

This rule is intended to implement Iowa Code section 455B.133.

567—23.4(455B) Specific processes.

23.4(1) General. The provisions of this rule shall not apply to those facilities for which performance standards are specified in 23.1(2). The emission standards specified in this rule shall apply and those specified in 23.3(2)“a” and 23.3(2)“b” shall not apply to each process of the types listed in the following subrules, except as provided below.

EXCEPTION: Whenever the director determines that a process complying with the emission standard prescribed in this section is causing or will cause air pollution in a specific area of the state, the specific emission standard may be suspended and compliance with the provisions of 23.3(455B) may be required in such instance.

23.4(2) Asphalt batching plants. No person shall cause, allow or permit the operation of an asphalt batching plant in a manner such that the particulate matter discharged to the atmosphere exceeds 0.15 grain per standard cubic foot of exhaust gas.

23.4(3) Cement kilns. Cement kilns shall be equipped with air pollution control devices to reduce the particulate matter in the gas discharged to the atmosphere to no more than 0.3 percent of the particulate matter entering the air pollution control device. Regardless of the degree of efficiency of the air pollution control device, particulate matter discharged from such kilns shall not exceed 0.1 grain per standard cubic foot of exhaust gas.

23.4(4) Cupolas for metallurgical melting. The emissions of particulate matter from all new foundry cupolas, and from all existing foundry cupolas with a process weight rate in excess of 20,000 pounds per hour, shall not exceed the amount specified in paragraph 23.3(2)“a,” except as provided in 567—Chapter 24.

The emissions of particulate matter from all existing foundry cupolas with a process weight rate less than or equal to 20,000 pounds per hour shall not exceed the amount determined from Table II of these rules, except as provided in 567—Chapter 24.

TABLE II
ALLOWABLE EMISSIONS FROM
EXISTING SMALL FOUNDRY CUPOLAS

Process weight rate (lb/hr)	Allowable emission (lb/hr)
1,000	3.05
2,000	4.70
3,000	6.35
4,000	8.00
5,000	9.58
6,000	11.30
7,000	12.90
8,000	14.30
9,000	15.50
10,000	16.65
12,000	18.70
16,000	21.60
18,000	23.40
20,000	25.10

23.4(5) *Electric furnaces for metallurgical melting.* The emissions of particulate matter to the atmosphere from electric furnaces used for metallurgical melting shall not exceed 0.1 grain per standard cubic foot of exhaust gas.

23.4(6) *Sand handling and surface finishing operations in metal processing.* This subrule shall apply to any new foundry or metal processing operation not properly termed a combustion, melting, baking or pouring operation. For purposes of this subrule, a new process is any process which has not started operation, or the construction of which has not been commenced, or the components of which have not been ordered or contracts for the construction of which have not been let on August 1, 1977. No person shall allow, cause or permit the operation of any equipment designed for sand shakeout, mulling, molding, cleaning, preparation, reclamation or rejuvenation or any equipment for abrasive cleaning, shot blasting, grinding, cutting, sawing or buffing in such a manner that particulate matter discharged from any stack exceeds 0.05 grains per dry standard cubic foot of exhaust gas, regardless of the types and number of operations that discharge from the stack.

23.4(7) *Grain handling and processing plants.* No person shall cause, allow or permit the operation of equipment at a permanent installation, for the handling or processing of grain, grain products and grain by-products such that the particulate matter discharged to the atmosphere exceeds 0.1 grain per standard cubic foot of exhaust gas.

23.4(8) *Lime kilns.* No person shall cause, allow or permit the operation of a kiln for the processing of limestone such that the particulate matter in the gas discharged to the atmosphere exceeds 0.1 grain per standard cubic foot of exhaust gas.

23.4(9) Meat smokehouses. No person shall cause, allow or permit the operation of a meat smokehouse or a group of meat smokehouses, which consume more than ten pounds of wood, sawdust or other material per hour such that the particulate matter discharged to the atmosphere exceeds 0.2 grain per standard cubic foot of exhaust gas.

23.4(10) Phosphate processing plants.

a. Phosphoric acid manufacture. No person shall allow, cause or permit the operation of equipment for the manufacture of phosphoric acid that was in existence on October 22, 1974, in a manner that produces more than 0.04 pound of fluoride per ton of phosphorous pentoxide or equivalent input.

b. Diammonium phosphate manufacture. No person shall allow, cause or permit the operation of equipment for the manufacture of diammonium phosphate that was in existence on October 22, 1974, in a manner that produces more than 0.15 pound of fluoride per ton of phosphorous pentoxide or equivalent input.

c. Nitrophosphate manufacture. No person shall allow, cause or permit the operation of equipment for the manufacture of nitrophosphate in a manner that produces more than 0.06 pound of fluoride per ton of phosphorus pentoxide or equivalent input.

d. No person shall allow, cause or permit the operation of equipment for the processing of phosphate ore, rock or other phosphatic material (other than equipment used for the manufacture of phosphoric acid, diammonium phosphate or nitrophosphate) in a manner that the unit emissions of fluoride exceed 0.4 pound of fluoride per ton of phosphorous pentoxide or its equivalent input.

e. Notwithstanding "a" through "d," no person shall allow, cause or permit the operation of equipment for the processing of phosphorous ore, rock or other phosphatic material including, but not limited to, phosphoric acid, in a manner that emissions of fluorides exceed 100 pounds per day.

f. "Fluoride" means elemental fluorine and all fluoride compounds as measured by reference methods specified in Appendix A to 40 CFR Part 60 as amended through March 12, 1996.

g. Calculation. The allowable total emission of fluoride shall be calculated by multiplying the unit emission specified above by the expressed design production capacity of the process equipment.

23.4(11) Portland cement concrete batching plants. No person shall cause, allow or permit the operation of a Portland cement concrete batching plant such that the particulate matter discharged to the atmosphere exceeds 0.1 grain per standard cubic foot of exhaust gas.

23.4(12)* Incinerators. No person shall cause, allow or permit the operation of an incinerator unless provided with appropriate control of emissions of particulate matter and visible air contaminants.

*Introductory paragraph, effective July 1, 1978

a. *Particulate matter.* No person shall cause, allow or permit the operation of an incinerator with a rated refuse burning capacity of 1000 or more pounds per hour in a manner such that the particulate matter discharged to the atmosphere exceeds 0.2 grain per standard cubic foot of exhaust gas adjusted to 12 percent carbon dioxide.

No person shall cause, allow or permit the operation of an incinerator with a rated refuse burning capacity of less than 1000 pounds per hour in a manner such that the particulate matter discharged to the atmosphere exceeds 0.35 grain per standard cubic foot of exhaust gas adjusted to 12 percent carbon dioxide.

b. *Visible emissions.* No person shall allow, cause or permit the operation of an incinerator in a manner such that it produces visible air contaminants in excess of 40 percent opacity; except that visible air contaminants in excess of 60 percent opacity may be emitted for a period or period aggregating not more than 3 minutes in any 60-minute period during an operation breakdown or during the cleaning of air pollution control equipment.

23.4(13) *Painting and surface-coating operations.* No person shall allow, cause or permit painting and surface-coating operations in a manner such that particulate matter in the gas discharge exceeds 0.01 grain per standard cubic foot of exhaust gas.

This rule is intended to implement Iowa Code section 455B.133.

567—23.5(455B) Anaerobic lagoons.

23.5(1) Applications for construction permits for animal feeding operations using anaerobic lagoons shall meet the requirements of rules 567—65.9(455B) and 65.15(455B) to 65.17(455B).

23.5(2) Criteria for approval of industrial anaerobic lagoons.

a. Lagoons designed to treat 100,000 gpd or less.

(1) The sulfate content of the water supply shall not exceed 250 mg/l. However, this paragraph does not apply to an expansion of an industrial anaerobic lagoon facility which was constructed prior to February 22, 1979.

(2) The design loading rate for the total lagoon volume shall not be less than 10 pounds nor more than 20 pounds of biochemical oxygen demand (five day) per thousand cubic feet per day.

b. Lagoons designed to treat more than 100,000 gpd.

(1) The sulfate content of the water supply shall not exceed 100 mg/l. However, this paragraph does not apply to an expansion of an industrial anaerobic lagoon facility which was constructed prior to February 22, 1979.

(2) The design loading rate for the total lagoon volume shall not be less than 10 pounds nor more than 20 pounds of biochemical oxygen demand (five day) per thousand cubic feet per day.

This rule is intended to implement Iowa Code section 455B.133.

567—23.6(455B) Alternative emission limits (the “bubble concept”). Emission limits for individual emission points included in 23.3(455B) (except 23.3(2) “*d.*” 23.3(2) “*b*”(3), and 23.3(3) “*a*”(3)) and 23.4(455B) (except 23.4(12) “*b*” and 23.4(6)) may be replaced by alternative emission limits. The alternative emission limits must be consistent with 567—22.7(455B) and 567—subrule 25.1(12). Under this rule, less stringent control limits where costs of emission control are high may be allowed in exchange for more stringent control limits where costs of control are less expensive.

Rules 23.3(455B) to 23.6(455B) are intended to implement Iowa Code section 455B.133.

[Filed 8/24/70; amended 5/2/72, 12/11/73, 12/17/74]

[Filed 3/1/76, Notice 11/3/75—published 3/22/76, effective 4/26/76]

[Filed 5/28/76, Notice 12/15/75, 1/12/76, 1/26/76, 2/23/76—published 6/14/76, effective 7/19/76]

[Filed 11/24/76, Notice 8/9/76—published 12/15/76, effective 1/19/77]

[Filed 12/22/76, Notice 8/9/76—published 1/12/77, effective 2/16/77]

[Filed 2/25/77, Notice 8/9/76—published 3/23/77, effective 4/27/77*]

[Filed 5/27/77, Notice 8/9/76, 12/29/76—published 6/15/77, effective 7/20/77]

[Filed 5/27/77, Notice 1/12/76, 3/9/77—published 6/15/77, effective 1/1/78 and 1/1/79]

[Filed without Notice 10/28/77—published 11/16/77, effective 12/21/77]

[Filed 4/27/78, Notice 11/16/77—published 5/17/78, effective 6/21/78]

[Filed 3/16/79, Notice 10/18/78—published 4/4/79, effective 5/9/79]

[Filed 4/12/79, Notice 9/6/78—published 5/2/79, effective 6/6/79]

[Filed 6/29/79, Notice 2/7/79—published 7/25/79, effective 8/29/79]

[Filed without Notice 6/29/79—published 7/25/79, effective 8/29/79]

[Filed 10/26/79, Notices 5/2/79, 8/8/79—published 11/14/79, effective 12/19/79]

[Filed 4/10/80, Notices 12/26/79, 1/23/80—published 4/30/80, effective 6/4/80]

[Filed 7/31/80, Notice 12/26/79—published 8/20/80, effective 9/24/80]

[Filed 9/26/80, Notice 5/28/80—published 10/15/80, effective 11/19/80]

*Objection, see filed rule [DEQ, 4.2(4)] published IAC Supp. 1/22/77, 3/9/77.

[Filed 12/12/80, Notice 10/15/80—published 1/7/81, effective 2/11/81]
 [Filed 4/23/81, Notice 2/4/81—published 5/13/81, effective 6/17/81]
 [Filed 5/21/81, Notice 3/18/81—published 6/10/81, effective 7/15/81]
 [Filed 7/31/81, Notices 12/10/80, 5/13/81—published 8/19/81, effective 9/23/81]
 [Filed emergency 9/11/81—published 9/30/81, effective 9/23/81]
 [Filed 9/11/81, Notice 7/8/81—published 9/30/81, effective 11/4/81]
 [Filed emergency 6/18/82—published 7/7/82, effective 7/1/82]
 [Filed 9/24/82, Notice 6/23/82—published 10/13/82, effective 11/17/82]
 [Filed emergency 6/3/83—published 6/22/83, effective 7/1/83]
 [Filed 7/28/83, Notice 2/16/83—published 8/17/83, effective 9/21/83**]
 [Filed 11/30/83, Notice 9/14/83—published 12/21/83, effective 1/25/84]
 [Filed 8/24/84, Notice 5/9/84—published 9/12/84, effective 10/18/84]
 [Filed 9/20/84, Notice 7/18/84—published 10/10/84, effective 11/14/84]
 [Filed 11/27/85, Notice 7/31/85—published 12/18/85, effective 1/22/86]
 [Filed 5/2/86, Notice 1/15/86—published 5/21/86, effective 6/25/86]
 [Filed emergency 11/14/86—published 12/3/86, effective 12/3/86]
 [Filed 8/21/87, Notice 6/17/87—published 9/9/87, effective 10/14/87]
 [Filed 1/22/88, Notice 11/18/87—published 2/10/88, effective 3/16/88]
 [Filed 3/30/89, Notice 1/11/89—published 4/19/89, effective 5/24/89]
 [Filed 5/24/90, Notice 3/21/90—published 6/13/90, effective 7/18/90]
 [Filed 7/19/90, Notice 4/18/90—published 8/8/90, effective 9/12/90]
 [Filed 3/29/91, Notice 1/9/91—published 4/17/91, effective 5/22/91]
 [Filed 12/30/92, Notice 9/16/92—published 1/20/93, effective 2/24/93]
 [Filed 11/19/93, Notice 9/15/93—published 12/8/93, effective 1/12/94]
 [Filed 2/25/94, Notice 10/13/93—published 3/16/94, effective 4/20/94]
 [Filed 7/29/94, Notice 3/16/94—published 8/17/94, effective 9/21/94]
 [Filed 9/23/94, Notice 6/22/94—published 10/12/94, effective 11/16/94]
 [Filed without Notice 2/24/95—published 3/15/95, effective 4/19/95]
 [Filed 5/19/95, Notice 3/15/95—published 6/7/95, effective 7/12/95]
 [Filed 8/25/95, Notice 6/7/95—published 9/13/95, effective 10/18/95]
 [Filed 4/19/96, Notice 1/17/96—published 5/8/96, effective 6/12/96]
 [Filed 9/20/96, Notice 6/19/96—published 10/9/96, effective 11/13/96]
 [Filed 3/20/97, Notice 11/20/96—published 4/9/97, effective 5/14/97]
 [Filed 6/27/97, Notice 3/12/97—published 7/16/97, effective 8/20/97]
 [Filed 3/19/98, Notice 1/14/98—published 4/8/98, effective 5/13/98]
 [Filed emergency 5/29/98—published 6/17/98, effective 6/29/98]
 [Filed 8/21/98, Notice 6/17/98—published 9/9/98, effective 10/14/98]◊
 [Filed 10/30/98, Notice 8/26/98—published 11/18/98, effective 12/23/98]
 [Filed 3/19/99, Notice 12/30/98—published 4/7/99, effective 5/12/99]
 [Filed 5/28/99, Notice 3/10/99—published 6/16/99, effective 7/21/99]
 [Filed 3/3/00, Notice 12/15/99—published 3/22/00, effective 4/26/00]
 [Filed 1/19/01, Notice 6/14/00—published 2/7/01, effective 3/14/01]
 [Filed 2/28/02, Notice 12/12/01—published 3/20/02, effective 4/24/02]
 [Filed 8/29/03, Notice 6/11/03—published 9/17/03, effective 10/22/03]

**Effective date of 23.2(4) delayed 70 days by the Administrative Rules Review Committee on 9/14/83.

◊Two ARCs

[Filed 11/19/03, Notice 7/9/03—published 12/10/03, effective 1/14/04]

[Filed 2/26/04, Notice 12/10/03—published 3/17/04, effective 4/21/04]

[Filed 10/22/04, Notice 7/21/04—published 11/10/04, effective 12/15/04]

[Filed 2/25/05, Notice 12/8/04—published 3/16/05, effective 4/20/05]

[Filed 5/18/05, Notice 3/16/05—published 6/8/05, effective 7/13/05]

[Filed 8/23/05, Notices 5/11/05, 7/6/05—published 9/14/05, effective 10/19/05]

[Filed 10/21/05, Notice 8/17/05—published 11/9/05, effective 12/14/05]